

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P152351

Luminaire Tested: **TLM-E01-LED-E1-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152351
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33680)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-E01-LED-E1-SL4-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (21) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

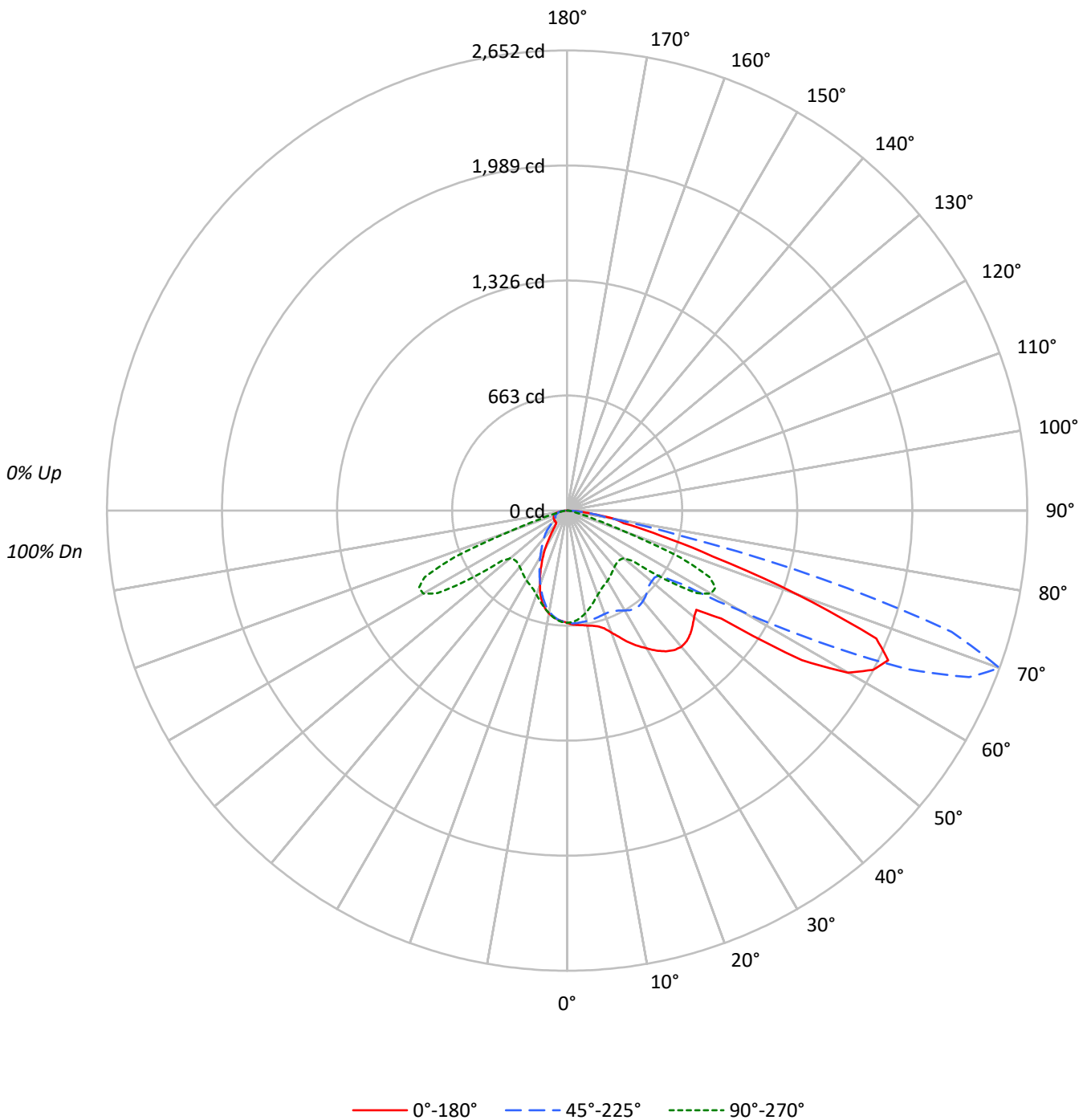
Lumens per Lamp: N/A
Luminaire Lumens: 3031.2 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80	78					78			
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	66	61	59					59			
3	83	70	59	51	80	68	58	51	65	57	50	62	55	49	59	53	48	45					45			
4	74	60	49	41	72	58	48	40	55	47	40	53	45	39	51	44	39	36					36			
5	67	52	41	33	65	51	41	33	48	40	33	46	38	32	44	37	32	29					29			
6	61	46	36	28	59	45	35	28	43	34	28	41	33	27	39	32	27	25					25			
7	57	41	31	24	55	40	31	24	39	30	24	37	29	23	36	29	23	21					21			
8	53	37	28	21	51	36	27	21	35	27	21	34	26	21	32	26	20	18					18			
9	49	34	25	19	47	33	25	19	32	24	18	31	24	18	30	23	18	16					16			
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	28	21	16	14					14			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	40954	40954	40954
5°	42044	40328	40068
10°	43276	38660	38724
15°	45315	36610	36073
20°	50428	34755	30908
25°	58475	33883	24710
30°	67022	34085	18454
35°	76508	34343	12004
40°	84671	35054	8282
45°	89956	37026	8265
50°	94071	42081	9200
55°	119696	77030	10045
60°	236616	121151	11258
65°	305875	135798	12660
70°	260251	64202	14255
75°	136802	23608	17565
80°	101768	12835	19070
85°	58918	12423	19106



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	2.0
10°-20°	165.4	5.5
20°-30°	244.9	8.1
30°-40°	309.5	10.2
40°-50°	350.0	11.5
50°-60°	498.0	16.4
60°-70°	927.5	30.6
70°-80°	425.1	14.0
80°-90°	50.5	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	470.7	15.5
0°-40°	780.2	25.7
0°-60°	1628.2	53.7
0°-90°	3031.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3031.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	647	647	647	647	647	
5°	662	651	634	629	630	63
15°	691	641	558	529	550	199
25°	837	638	485	378	354	389
35°	990	689	444	253	155	619
45°	1005	654	414	166	92	773
55°	1084	651	698	84	91	1139
65°	2042	2162	906	75	84	1883
75°	559	1520	96	59	72	688
85°	81	71	17	27	26	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8
2.5°	656.7	658.4	656.4	656.0	656.0	655.7	653.6	653.3	650.6	650.9	651.6
5°	661.5	662.2	660.8	660.5	659.8	658.4	656.7	654.7	652.6	650.6	648.8
7.5°	666.3	665.6	664.6	664.6	663.5	661.5	658.1	655.3	650.9	648.5	645.4
10°	673.1	672.1	670.7	670.0	668.3	665.3	660.5	656.7	651.2	646.4	641.3
12.5°	679.6	679.3	677.2	676.2	673.5	670.4	664.6	658.8	651.6	644.1	637.2
15°	691.3	689.9	687.8	685.8	681.3	677.2	668.3	661.5	651.2	641.3	630.7
17.5°	711.4	709.0	707.0	702.5	697.1	689.9	676.9	665.3	651.2	636.9	624.9
20°	748.4	743.2	740.5	734.7	725.1	712.1	691.9	673.1	652.3	633.8	617.7
22.5°	790.1	786.7	782.9	779.2	764.1	745.3	717.9	689.9	658.4	632.4	611.9
25°	837.0	832.5	830.5	824.0	809.9	788.4	751.1	712.1	672.4	637.9	611.9
27.5°	878.7	877.3	877.0	869.5	856.1	830.8	786.7	739.8	691.6	649.2	617.0
30°	916.7	915.3	914.6	910.5	895.1	865.0	817.1	764.4	712.5	664.9	626.6
32.5°	957.0	952.6	950.5	942.6	925.2	890.0	835.2	780.5	728.9	680.3	637.2
35°	989.8	986.1	982.0	970.7	946.1	904.3	843.1	786.0	735.4	688.9	642.7
37.5°	1013.8	1010.0	1004.2	989.8	959.4	909.1	842.8	784.3	733.0	687.5	643.7
40°	1024.4	1020.6	1014.5	996.3	961.8	906.4	836.3	776.4	725.8	680.3	639.6
42.5°	1020.3	1017.6	1009.7	992.2	954.3	894.1	823.3	761.7	712.1	668.7	630.4
45°	1004.6	1002.5	995.0	976.5	937.2	874.2	804.1	743.2	695.7	654.3	618.1
47.5°	981.0	980.3	972.7	954.6	915.6	854.4	784.3	725.1	679.3	640.3	607.8
50°	955.0	951.5	947.8	931.0	895.4	837.3	769.9	713.8	670.0	635.2	603.4
52.5°	938.5	937.5	934.1	919.0	884.8	827.4	763.4	709.7	669.4	634.1	601.0
55°	1084.3	1086.6	1055.2	989.8	932.4	854.7	782.9	730.6	686.1	650.6	626.3
57.5°	1603.8	1593.2	1539.2	1409.5	1263.1	1069.9	930.7	846.2	791.1	797.3	809.6
60°	1868.5	1866.5	1856.6	1806.3	1708.8	1561.7	1398.6	1211.5	1152.0	1158.5	1163.3
62.5°	1986.9	1990.0	1997.5	1978.7	1953.0	1910.3	1828.9	1753.6	1673.9	1644.2	1564.5
65°	2041.6	2047.1	2064.2	2074.8	2084.7	2092.2	2124.4	2212.6	2270.8	2162.0	1908.9
67.5°	1928.4	1954.7	2011.2	2066.2	2115.5	2185.6	2294.4	2499.3	2641.9	2508.1	2141.1
70°	1405.8	1441.7	1506.3	1676.7	1858.6	2017.7	2228.4	2540.3	2755.4	2652.1	2198.6
72.5°	881.4	891.3	920.1	982.7	1117.8	1322.0	1690.3	2158.2	2406.6	2324.1	1858.3
75°	559.2	562.6	561.6	576.0	598.9	643.4	789.1	1274.8	1648.6	1520.0	1035.7
77.5°	333.1	338.3	340.3	344.8	355.7	371.5	383.4	433.7	691.3	671.1	375.9
80°	279.1	283.2	279.8	278.8	271.9	267.1	272.9	267.1	248.0	238.7	219.9
82.5°	147.8	147.4	146.4	156.3	176.5	192.2	204.2	201.5	182.3	155.3	131.7
85°	81.1	83.8	83.8	87.2	84.1	84.5	87.2	92.0	85.2	71.1	58.1
87.5°	6.8	10.6	8.6	10.6	14.4	10.3	9.9	9.9	8.6	6.2	5.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8
2.5°	649.9	649.2	647.8	646.8	646.8	645.1	644.1	643.4	643.0	641.7	641.7
5°	647.8	645.4	643.0	641.3	640.3	638.6	635.8	634.5	632.8	631.4	630.7
7.5°	643.4	638.9	635.2	632.4	629.0	626.3	622.8	619.8	616.7	615.3	614.6
10°	636.5	630.7	624.9	619.8	615.0	610.2	605.7	601.3	597.5	594.8	592.1
12.5°	630.0	621.1	613.6	606.1	598.6	592.7	586.6	580.1	574.6	569.5	568.1
15°	621.1	610.9	601.3	592.1	582.8	573.3	565.7	558.5	549.7	543.8	539.4
17.5°	612.9	600.6	589.0	578.0	566.8	556.8	545.5	536.0	527.1	518.2	511.7
20°	604.0	590.7	578.4	566.1	553.8	541.1	528.1	515.8	504.8	494.2	483.6
22.5°	596.2	582.5	570.5	557.2	543.5	529.1	514.1	498.7	486.0	472.4	460.0
25°	591.4	576.3	564.0	551.0	536.0	520.2	503.1	485.0	469.6	453.9	439.2
27.5°	591.4	571.9	559.2	546.2	530.8	514.1	495.3	475.4	458.0	440.5	422.4
30°	596.5	572.6	555.5	541.8	526.1	507.9	487.1	466.2	447.0	426.5	409.1
32.5°	601.3	573.9	552.7	535.3	517.2	499.4	478.2	455.9	434.7	415.2	396.8
35°	604.4	573.9	547.6	525.4	504.8	487.4	466.5	444.3	422.8	403.6	386.5
37.5°	604.7	571.2	539.4	514.1	492.5	474.4	454.6	433.7	413.2	395.4	381.0
40°	601.3	565.7	531.2	502.1	479.5	461.1	442.9	424.1	405.7	390.9	378.6
42.5°	595.1	559.9	523.3	492.5	468.9	449.8	433.0	416.9	400.9	388.2	377.9
45°	585.9	552.0	516.1	486.7	463.5	443.3	426.9	413.5	399.8	389.2	379.0
47.5°	577.7	549.3	518.5	490.5	466.2	445.3	428.6	417.3	406.7	399.5	385.5
50°	576.0	547.9	519.6	493.6	468.9	447.7	433.0	427.2	424.1	419.7	398.1
52.5°	571.2	547.6	527.1	512.7	497.0	487.1	471.7	477.1	473.7	458.0	419.0
55°	621.5	628.3	647.5	674.8	700.1	706.0	704.3	697.8	663.2	570.5	469.3
57.5°	854.4	893.1	929.3	945.4	943.3	925.2	912.2	885.9	835.9	723.1	568.5
60°	1178.0	1184.1	1165.0	1136.6	1088.7	1048.7	1005.9	956.7	884.2	773.7	629.3
62.5°	1475.9	1393.1	1307.9	1227.9	1155.1	1091.4	1031.9	963.2	868.8	753.5	621.5
65°	1686.2	1511.1	1376.7	1261.8	1158.8	1069.9	995.7	906.4	800.0	696.0	576.0
67.5°	1794.7	1526.2	1319.9	1159.8	1013.8	890.7	791.8	704.9	625.9	580.4	504.2
70°	1673.6	1295.3	1008.0	827.0	652.3	523.0	413.2	346.8	323.9	367.0	381.7
72.5°	1247.1	843.1	599.6	463.8	355.4	283.2	217.2	170.7	138.9	145.7	189.1
75°	589.7	363.9	257.2	195.6	155.6	128.9	105.3	96.5	80.7	67.0	62.9
77.5°	229.5	167.3	138.2	101.2	71.8	57.8	49.3	47.5	48.6	47.2	46.5
80°	174.8	118.3	74.2	54.4	46.9	41.4	36.6	35.2	35.9	37.6	39.3
82.5°	97.5	60.9	45.1	39.3	35.2	30.1	27.4	25.3	25.7	27.7	31.5
85°	37.6	29.4	27.0	26.0	24.3	19.5	16.8	17.1	19.5	23.3	23.3
87.5°	4.1	4.1	5.5	4.1	4.1	4.1	3.8	4.4	4.8	6.2	7.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8	646.8
2.5°	641.0	641.0	641.0	640.3	640.6	639.3	639.3	638.2	639.9	638.9	638.6
5°	631.1	630.7	629.3	629.3	629.3	629.3	630.4	627.6	629.7	629.7	628.7
7.5°	614.3	614.3	610.5	612.6	611.9	612.9	614.3	612.9	615.0	616.3	615.3
10°	591.0	591.0	588.0	590.4	589.3	591.7	594.1	592.7	594.1	596.2	596.9
12.5°	565.4	564.0	561.3	562.3	562.3	563.7	564.7	566.4	568.1	570.9	572.2
15°	535.6	533.6	530.2	530.2	528.1	528.8	530.8	531.5	534.9	538.7	543.2
17.5°	505.2	500.1	496.3	491.8	488.4	491.2	493.6	495.3	498.0	503.8	506.9
20°	476.5	466.2	459.0	453.2	449.4	451.1	454.2	456.3	458.7	460.0	461.1
22.5°	448.1	436.4	426.5	419.3	413.2	414.9	413.5	412.5	414.2	409.8	409.4
25°	423.4	409.8	396.4	387.9	380.3	377.9	370.8	369.1	364.3	360.5	357.8
27.5°	405.7	387.9	373.2	363.2	351.3	342.4	333.1	323.9	318.8	312.6	309.5
30°	391.6	372.8	355.4	338.6	322.9	309.2	296.9	284.9	276.7	267.8	262.0
32.5°	378.6	361.2	340.0	317.1	295.9	280.5	264.4	250.7	237.7	226.1	217.5
35°	369.7	350.2	323.2	295.2	271.2	253.1	236.0	216.5	200.8	185.7	176.5
37.5°	365.0	341.0	307.8	276.7	250.0	229.5	208.3	185.7	166.6	152.5	138.5
40°	361.2	331.8	294.2	260.3	232.2	207.6	183.0	156.3	135.1	120.4	109.5
42.5°	357.1	321.5	282.2	247.3	216.2	187.4	157.7	129.3	109.1	98.8	94.1
45°	352.6	312.6	270.9	235.0	200.4	165.5	131.3	105.0	93.0	89.6	89.6
47.5°	351.6	306.8	262.7	223.0	182.6	140.2	107.1	90.6	87.2	87.9	89.3
50°	355.7	305.1	255.5	209.0	159.0	113.6	90.6	85.2	85.9	87.9	90.0
52.5°	365.6	306.5	248.0	189.5	131.0	93.7	83.8	83.5	85.5	88.6	90.6
55°	382.4	306.5	233.6	160.4	104.7	84.1	81.4	82.8	85.5	88.2	90.0
57.5°	418.3	303.4	208.3	128.3	87.6	80.7	80.7	82.4	84.8	87.6	88.9
60°	461.1	299.3	172.7	99.2	79.0	78.0	80.4	82.4	84.5	86.9	88.2
62.5°	463.8	288.7	136.8	82.1	74.6	76.3	80.0	82.8	83.5	85.2	86.9
65°	426.2	251.7	108.8	73.5	72.5	75.2	79.0	81.1	81.4	82.1	83.8
67.5°	373.2	205.2	87.9	69.4	70.5	73.5	75.6	77.3	78.3	80.0	80.4
70°	306.5	164.9	75.2	65.3	66.4	69.8	71.5	73.2	75.2	77.3	76.3
72.5°	217.2	128.3	66.0	60.9	62.3	65.3	67.4	68.7	70.5	72.5	71.1
75°	92.3	89.6	57.1	55.1	57.1	59.2	61.2	63.3	65.0	66.0	66.0
77.5°	47.2	52.7	49.3	49.3	50.6	52.7	54.4	56.4	57.5	58.5	59.9
80°	40.0	40.7	41.4	42.8	44.1	46.2	47.9	49.6	49.9	50.3	51.0
82.5°	33.2	34.5	35.2	37.3	38.3	39.0	40.0	40.0	40.7	40.7	39.7
85°	23.9	25.7	26.7	27.0	26.7	27.0	27.4	28.0	29.8	29.8	28.4
87.5°	6.8	6.5	8.2	8.6	9.2	10.6	12.0	14.4	15.0	15.7	15.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P152351

CATALOG NUMBER: TLM-E01-LED-E1-SL4-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	646.8	646.8	646.8	646.8
2.5°	638.2	638.9	637.6	637.9
5°	628.7	630.0	628.3	630.4
7.5°	616.3	618.4	618.1	617.7
10°	598.6	601.3	601.3	602.3
12.5°	576.0	577.7	579.1	579.7
15°	545.5	548.6	550.3	550.3
17.5°	508.9	511.0	512.0	510.7
20°	462.4	461.7	462.1	458.7
22.5°	408.7	409.8	406.7	407.4
25°	356.1	354.3	355.7	353.7
27.5°	305.1	305.4	301.7	303.4
30°	256.5	254.8	250.0	252.4
32.5°	209.7	205.2	200.1	197.0
35°	165.5	158.7	156.3	155.3
37.5°	130.0	122.4	120.1	117.3
40°	103.3	100.6	99.5	100.2
42.5°	92.7	92.7	93.4	93.7
45°	90.0	91.0	92.0	92.3
47.5°	90.3	91.3	92.7	93.0
50°	91.0	92.0	93.0	93.4
52.5°	91.3	91.3	92.0	92.3
55°	90.6	90.3	90.6	91.0
57.5°	89.3	88.6	88.9	90.0
60°	88.6	87.6	88.2	88.9
62.5°	86.9	86.5	87.2	87.6
65°	83.1	83.5	84.5	84.5
67.5°	79.7	80.0	80.4	80.7
70°	75.6	75.9	76.6	77.0
72.5°	70.8	72.2	73.2	74.6
75°	67.0	68.4	70.5	71.8
77.5°	60.5	61.6	64.0	65.7
80°	51.3	51.0	51.3	52.3
82.5°	39.3	39.3	39.0	38.6
85°	27.7	27.4	26.3	26.3
87.5°	15.0	14.7	14.4	13.7
90°	0.0	0.0	0.0	0.0

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